

ABSTRACT OF THE DISCLOSURE

The present invention provides a thin-film transistor (TFT) and its production method which enables an arrangement restraining bipolar transistor type behavior, in order to stabilize saturation current and to provide a TFT that can improve reliability. The TFT includes a channel region facing a gate electrode through a gate insulating film, a source electrode connected to the channel region and a drain region connected to the channel region on the side opposite this source region are formed in a polycrystal semiconductor film that was patterned in island forms. In the channel region, a recombination center is formed for capturing a small number of carriers (holes) by introducing impurities, such as inert gases, metals, Group III elements, Group IV elements and Group V elements after a crystallization process is carried out on a semiconductor film 100.

093604-121801